

# BOOTSTRAP

## Module 6

Ryan Collins

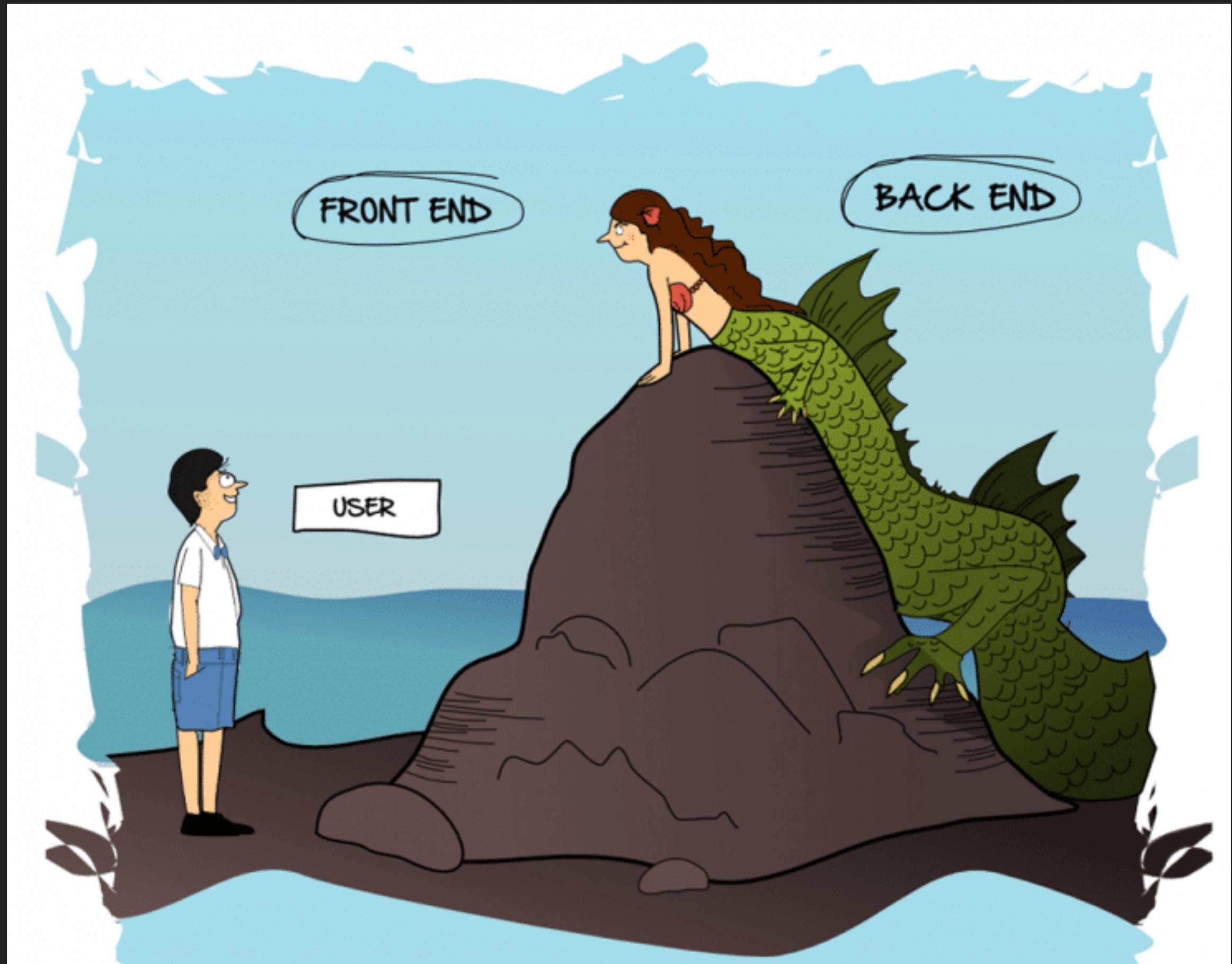


# Bootstrap

A Front-End Library

<https://getbootstrap.com>

# WHAT IS BOOTSTRAP?



# FRONT-END

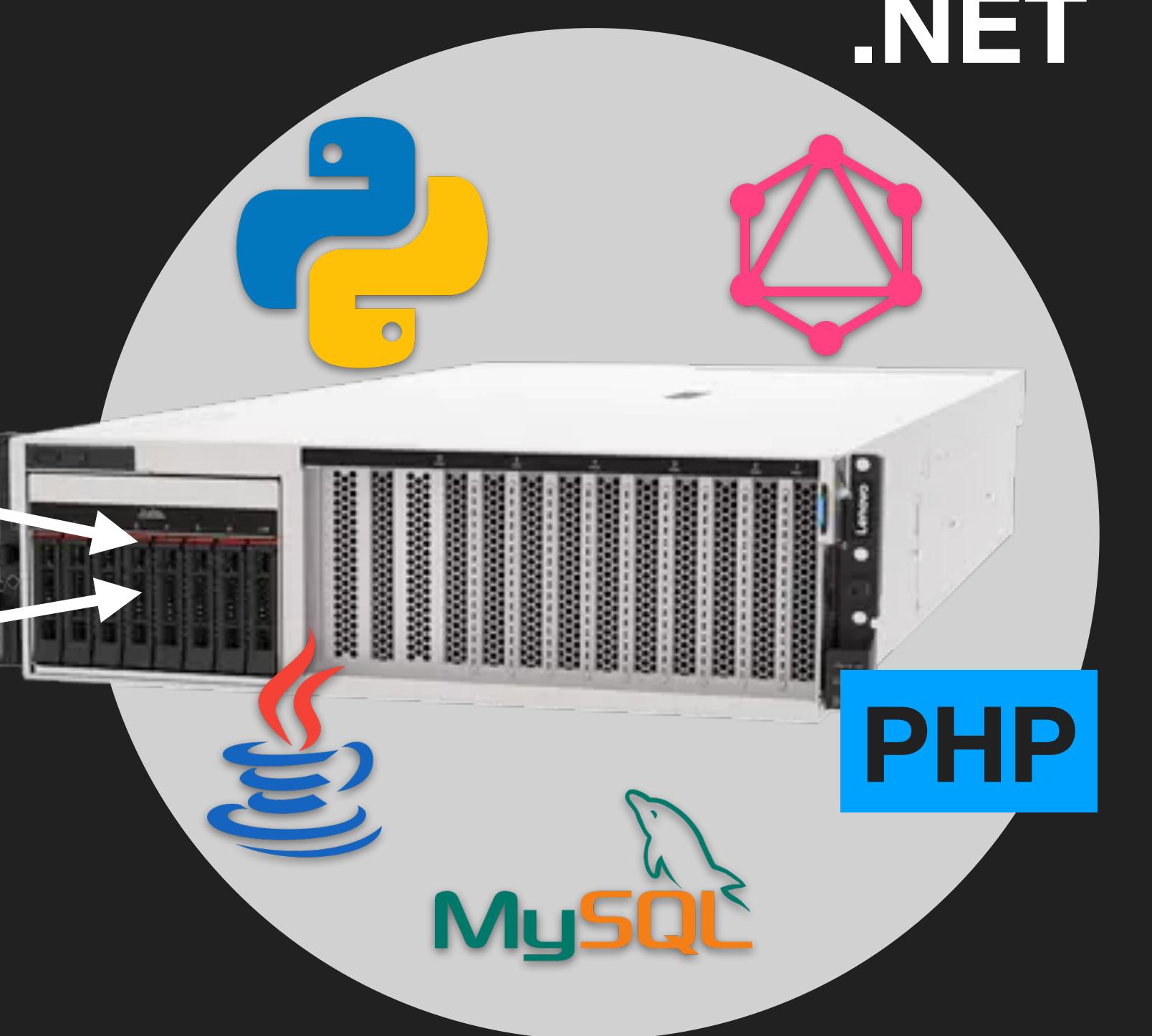


JavaScript

CSS

HTML

# BACK-END



node

# FREE AND OPEN SOURCE

Searched: twbs/bootstrap

Code Issues Pull requests Discussions Actions Projects Security Insights

main · 87 branches · 79 tags

XhmikosR Update devDependencies (#36900) · a685b96 · 4 days ago · 21,854 commits

.github · Remove Slack from site and repo docs (#36825) · 13 days ago

build · Update devDependencies (#35841) · 6 months ago

dist · Release v5.2.0 (#36768) · 19 days ago

js · ScrollSpy: make the threshold option configurable (#36750) · 10 days ago

nuget · Update nuget/bootstrap.png (#35641) · 7 months ago

scss · fix #36662 List-group-item margin-top is offset when importing sas... · 4 days ago

site · Added new example in examples/features page. (#36660) · 4 days ago

.babelrc.js · Update Babel config (#31011) · 2 years ago

.browserslistrc · .browserslistrc: remove Android and make Safari/iOS 12 the minimu... · 17 months ago

.bundlewatch.config.json · Support input groups in floating forms (#36759) · 21 days ago

.cspell.json · Fix StackBlitz Popovers and Tooltips examples (#36449) · 2 months ago

.editorconfig · Trim trailing whitespace from markdown files (#29460) · 3 years ago

.eslintignore · Rename \_gh\_pages to \_site. (#33129) · 17 months ago

.eslintrc.json · ESLint: disable no-negated-condition rule (#35137) · 10 months ago

**About**

The most popular HTML, CSS, and JavaScript framework for developing responsive, mobile first projects on the web.

[getbootstrap.com](#)

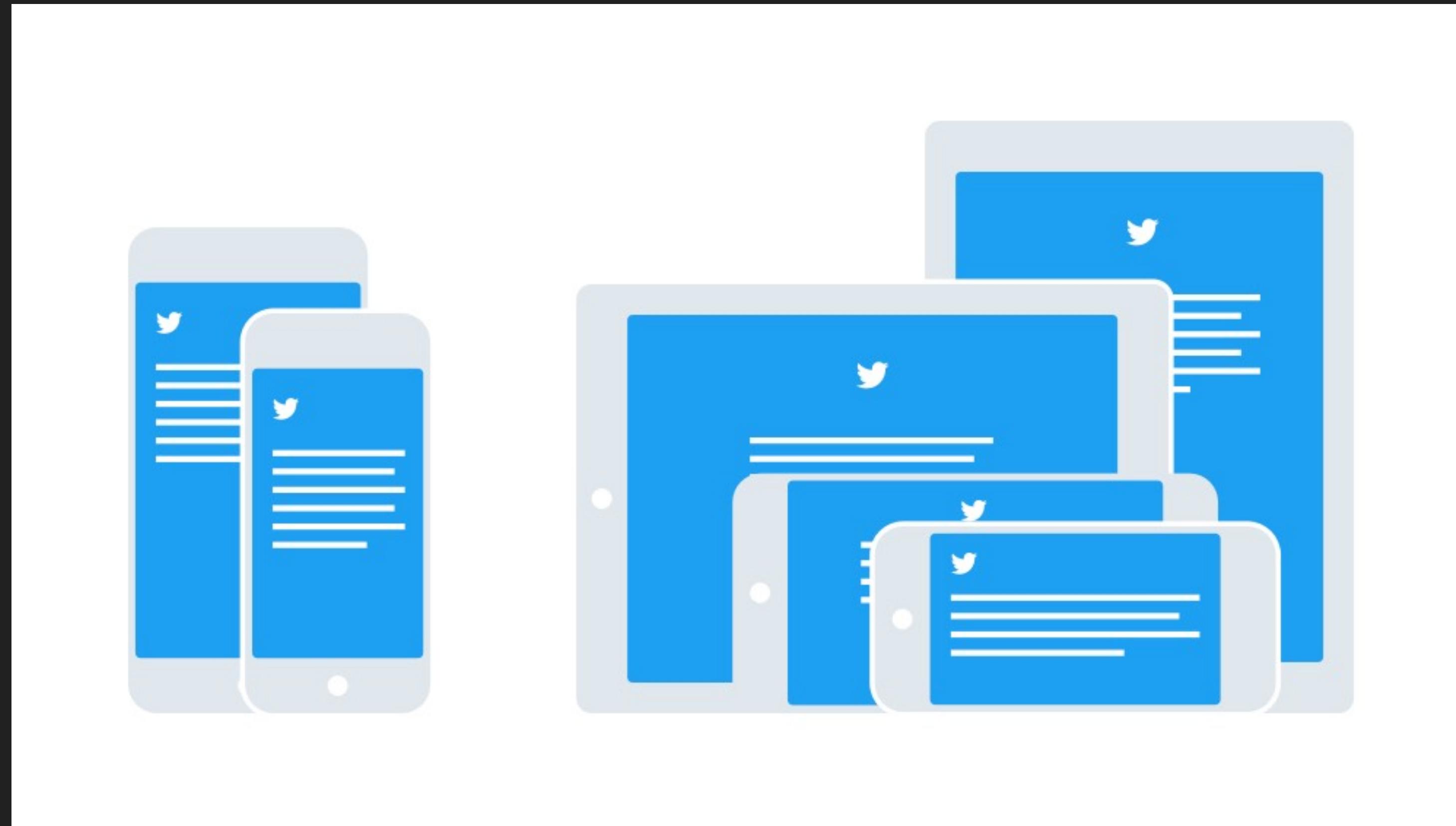
javascript · css · html · sass  
bootstrap · scss · css-framework

Readme · MIT license · Code of conduct · 159k stars · 6.9k watching · 77k forks

**Releases** 79

v5.2.0 · Latest · 19 days ago  
+ 78 releases

# RESPONSIVE



# PRE-STYLED ELEMENTS

## Example page header

Subtext for header

### h2. Heading 2

h3. Heading 3

#### h4. Heading 4

Link

Primary Secondary Success Danger

Notifications 3 Block level button

Home / Library / Data Previous 1 2 3 Next Button Button Button

Dropdown button ▾

Action  
Another action  
Something else here

Card title  
Card subtitle  
Some quick example text to build on the card title and make up the bulk of the card's content.

Card link Another link

286x180

Card title  
Some quick example text to build on the card title and make up the bulk of the card's content.

Go somewhere

Active item

Dapibus ac facilisis in  
Disabled item  
Porta ac consectetur ac  
Vestibulum at eros

Cras justo odio 14  
Dapibus ac facilisis in 2  
Vestibulum at eros 1

Label Input field 1 ▾

Input label  
Input field Password

# HOW CAN WE TRY BOOTSTRAP?

<https://www.codeply.com>

The screenshot shows the Codeply homepage with a dark theme. On the left, there's a sidebar with various framework icons and links: Angular, Bootstrap 4 (selected), Bootstrap 5, Bootstrap + Font..., Bulma, Foundation, React, Tailwind, Vue, and Vue + Vuetify. Below these are buttons for 'Featured', 'Popular', and 'Latest'. In the center, there's a 'New to Codeply?' section with a 'QUICK SIGN-UP' button and a 'GET STARTED' button. To the right, there's a 'Starter Tem...' sidebar listing several templates like 'Bootstrap Hello World', 'Bootstrap Dashboard', etc. At the bottom, there are three large colored cards (blue, red, green) with some placeholder text.

New PLY +

New to Codeply?  
(html, css, javascript) => {editor}

Angular

Bootstrap 4

Bootstrap 5

Bootstrap + Font...

Bulma

Foundation

React

Tailwind

Vue

Vue + Vuetify

Featured

Popular

Latest

Search

Starter Tem...

Bootstrap Hello World

Bootstrap Dashboard

Bootstrap Off-canvas

Bootstrap Checkout ...

Bootstrap Single Pa...

Bulma Starter

Vue Starter

Vue Router & Comp...

Vuetify Starter

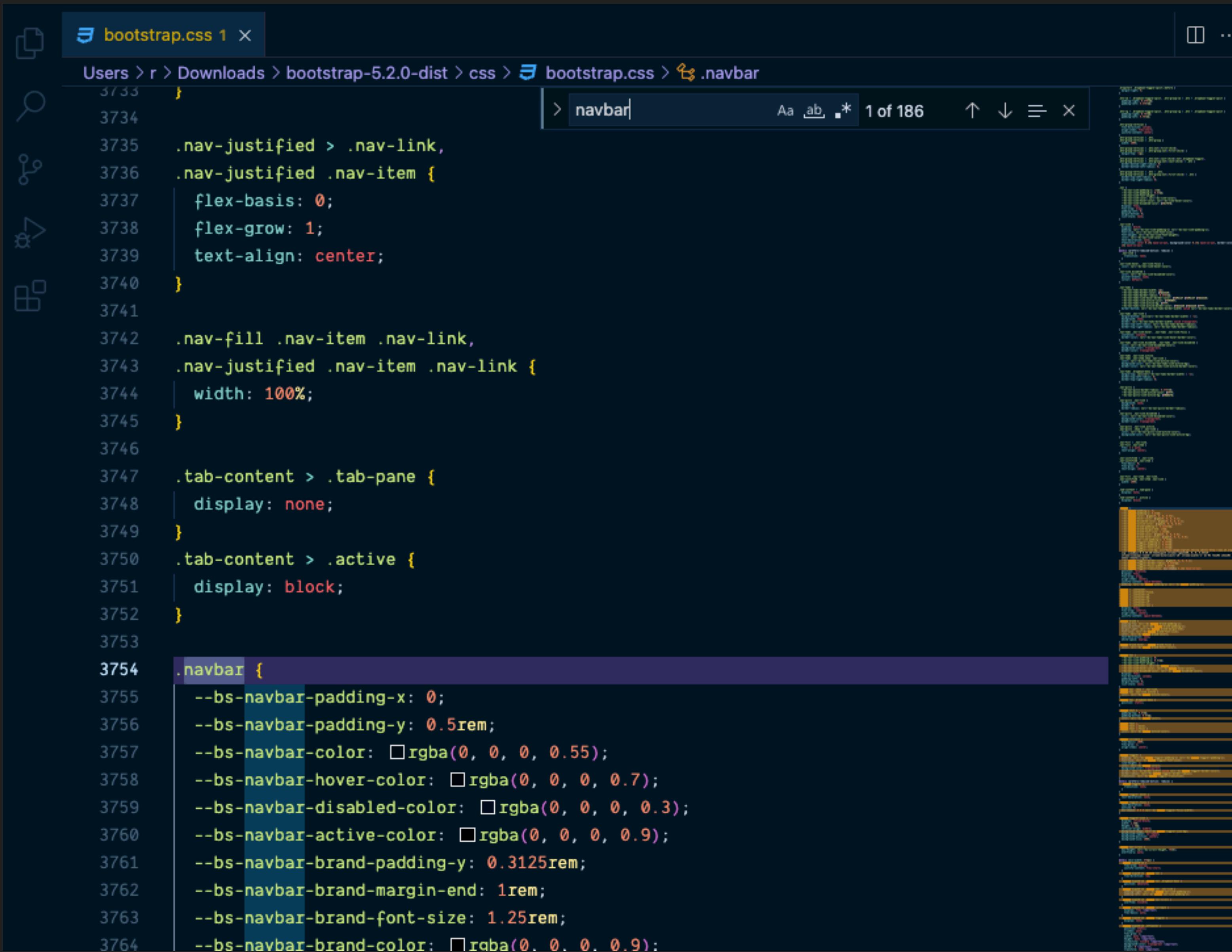
React Starter

React Router & Com...

Newest Me...

Find code or showcase your own

# CHECK THE SOURCE



A screenshot of a code editor displaying the `bootstrap.css` file. The file path is `Users > r > Downloads > bootstrap-5.2.0-dist > css > bootstrap.css`. The `.navbar` selector is highlighted with a purple background. The code editor interface includes a sidebar with icons for search, file, and navigation, and a status bar at the bottom.

```
3733 }
3734
3735 .nav-justified > .nav-link,
3736 .nav-justified .nav-item {
3737   flex-basis: 0;
3738   flex-grow: 1;
3739   text-align: center;
3740 }
3741
3742 .nav-fill .nav-item .nav-link,
3743 .nav-justified .nav-item .nav-link {
3744   width: 100%;
3745 }
3746
3747 .tab-content > .tab-pane {
3748   display: none;
3749 }
3750 .tab-content > .active {
3751   display: block;
3752 }
3753
3754 .navbar {
3755   --bs-navbar-padding-x: 0;
3756   --bs-navbar-padding-y: 0.5rem;
3757   --bs-navbar-color: □rgba(0, 0, 0, 0.55);
3758   --bs-navbar-hover-color: □rgba(0, 0, 0, 0.7);
3759   --bs-navbar-disabled-color: □rgba(0, 0, 0, 0.3);
3760   --bs-navbar-active-color: □rgba(0, 0, 0, 0.9);
3761   --bs-navbar-brand-padding-y: 0.3125rem;
3762   --bs-navbar-brand-margin-end: 1rem;
3763   --bs-navbar-brand-font-size: 1.25rem;
3764   --bs-navbar-brand-color: □rgba(0, 0, 0, 0.9);
```

# LET'S TRY ON CODEPLY

The screenshot shows the Codeply web-based development environment. At the top, there's a navigation bar with a 'New' button, a project name 'Bootstrap 5 starter', and various icons for file operations like play, save, and settings. To the right is a search bar and user profile icons.

The main workspace is divided into two sections. On the left, the 'HTML' tab is active, displaying the following code:

```
1 <div class="navbar bg-dark">
2   <button class="btn btn-primary">Contact Me</button>
3 </div>
4
```

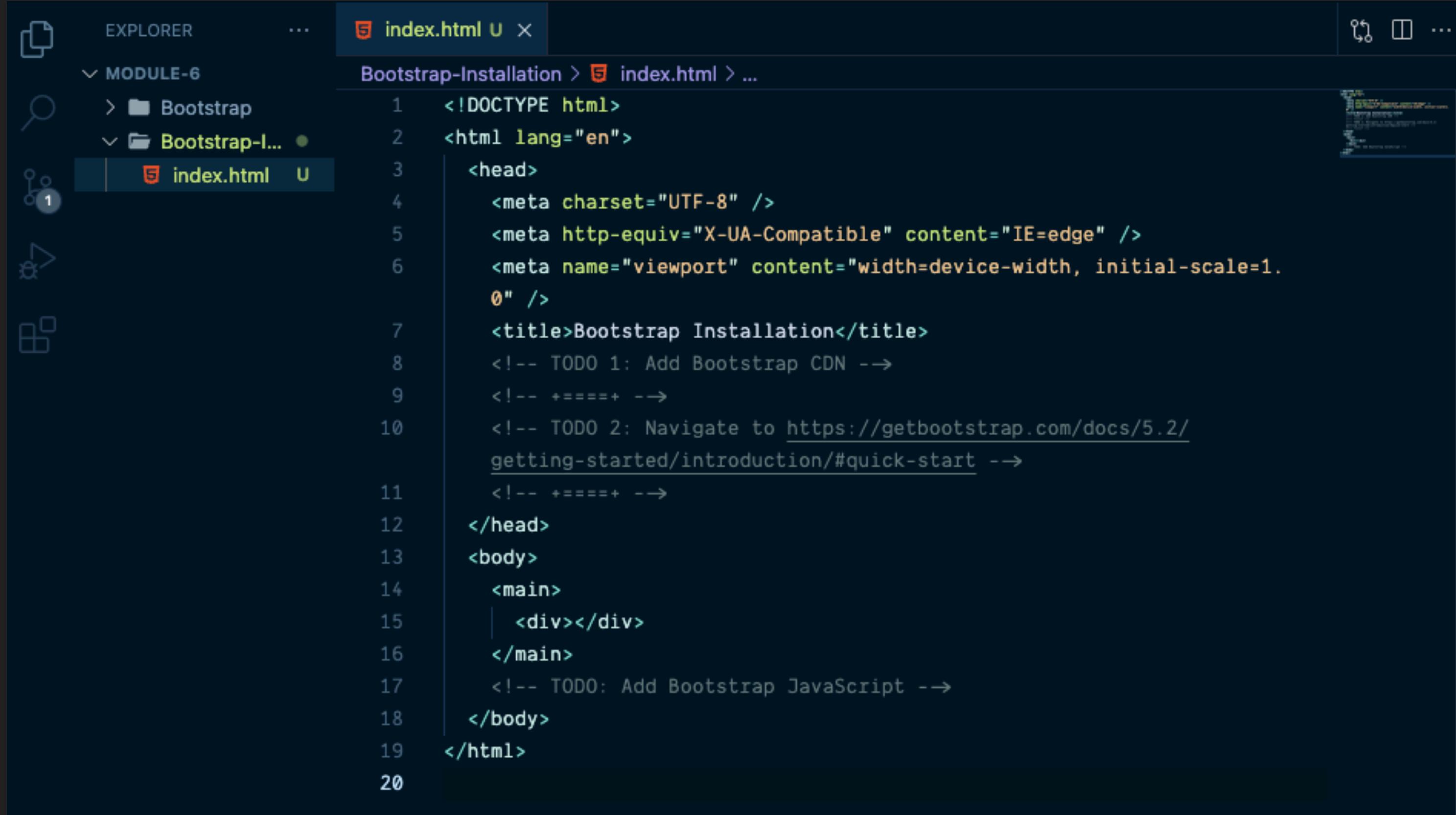
On the right, the preview area shows a dark-themed web page with a single blue button labeled 'Contact Me'.

Below the HTML editor, the 'JAVASCRIPT' tab is active, showing a script block:

```
1
```

The interface has a clean, modern design with a dark background and light-colored code blocks.

# INSTALLING BOOTSTRAP



The screenshot shows a code editor interface with a dark theme. On the left is the Explorer sidebar, which displays a project structure under 'MODULE-6'. The 'Bootstrap' folder contains an 'index.html' file, which is currently selected and shown in the main editor area. The editor shows the following HTML code:

```
1  <!DOCTYPE html>
2  <html lang="en">
3      <head>
4          <meta charset="UTF-8" />
5          <meta http-equiv="X-UA-Compatible" content="IE=edge" />
6          <meta name="viewport" content="width=device-width, initial-scale=1.
0" />
7          <title>Bootstrap Installation</title>
8          <!-- TODO 1: Add Bootstrap CDN -->
9          <!-- +====+ -->
10         <!-- TODO 2: Navigate to https://getbootstrap.com/docs/5.2/
getting-started/introduction/#quick-start -->
11         <!-- +====+ -->
12     </head>
13     <body>
14         <main>
15             <div></div>
16         </main>
17         <!-- TODO: Add Bootstrap JavaScript -->
18     </body>
19 </html>
20
```

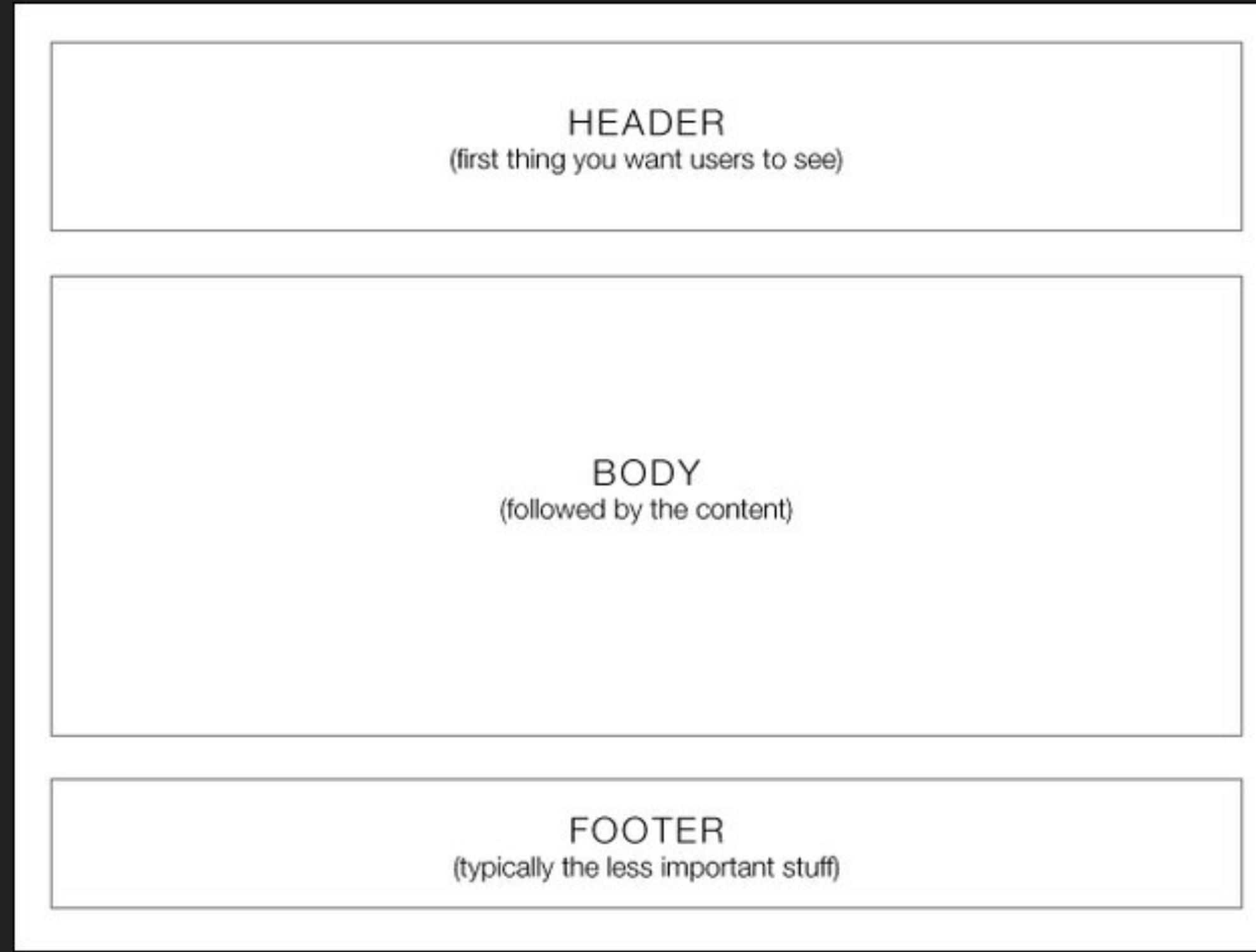
Review CDN principals <https://www.cloudflare.com/en-ca/network/>

Navigate to [Installing Bootstrap source files](#)

# **WEB DESIGN 101**

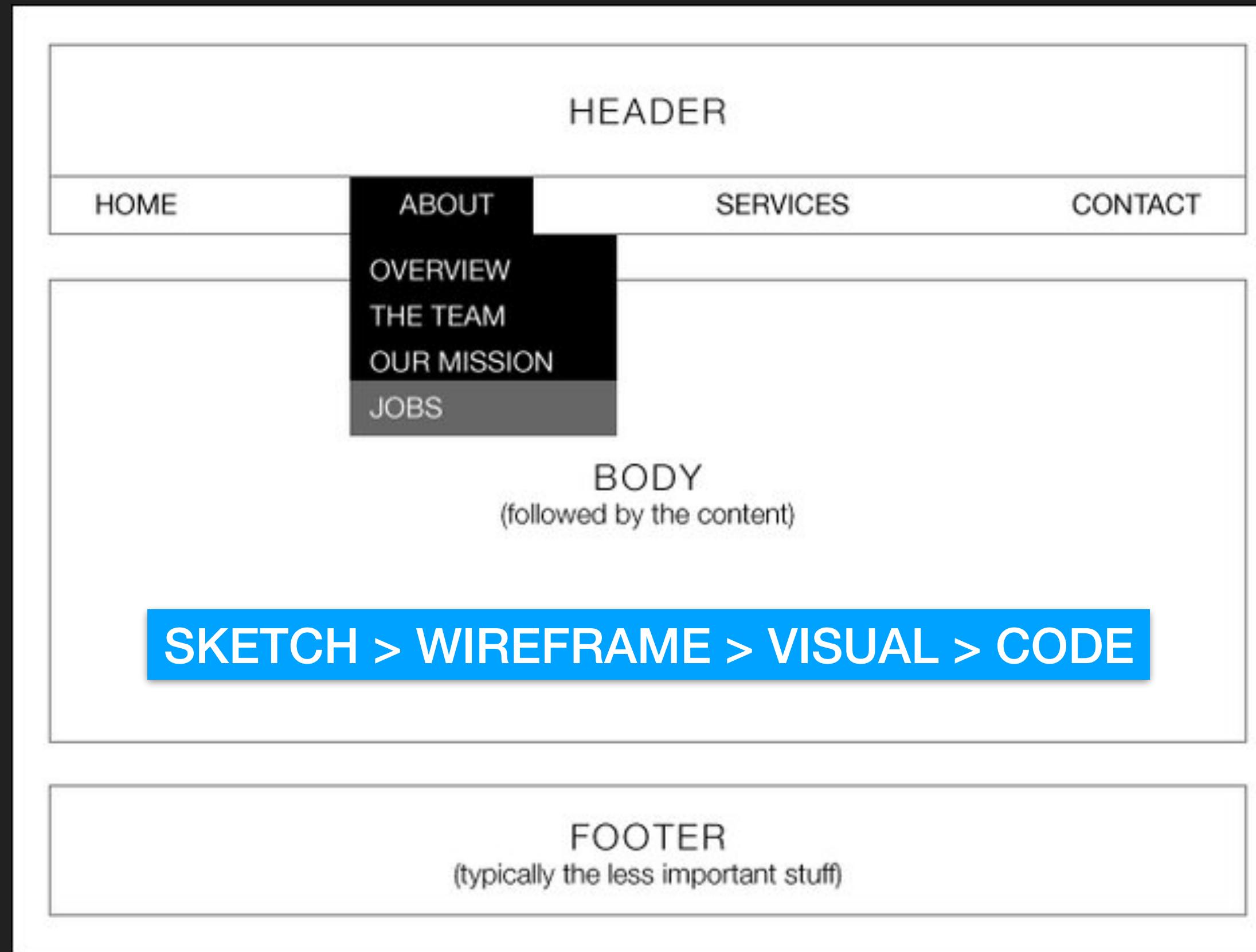
# WIREFRAMING

## What is a wireframe?



Think of a website wireframe like an architectural blueprint; you need to see it in two-dimensional black and white diagrams before you understand how to build it

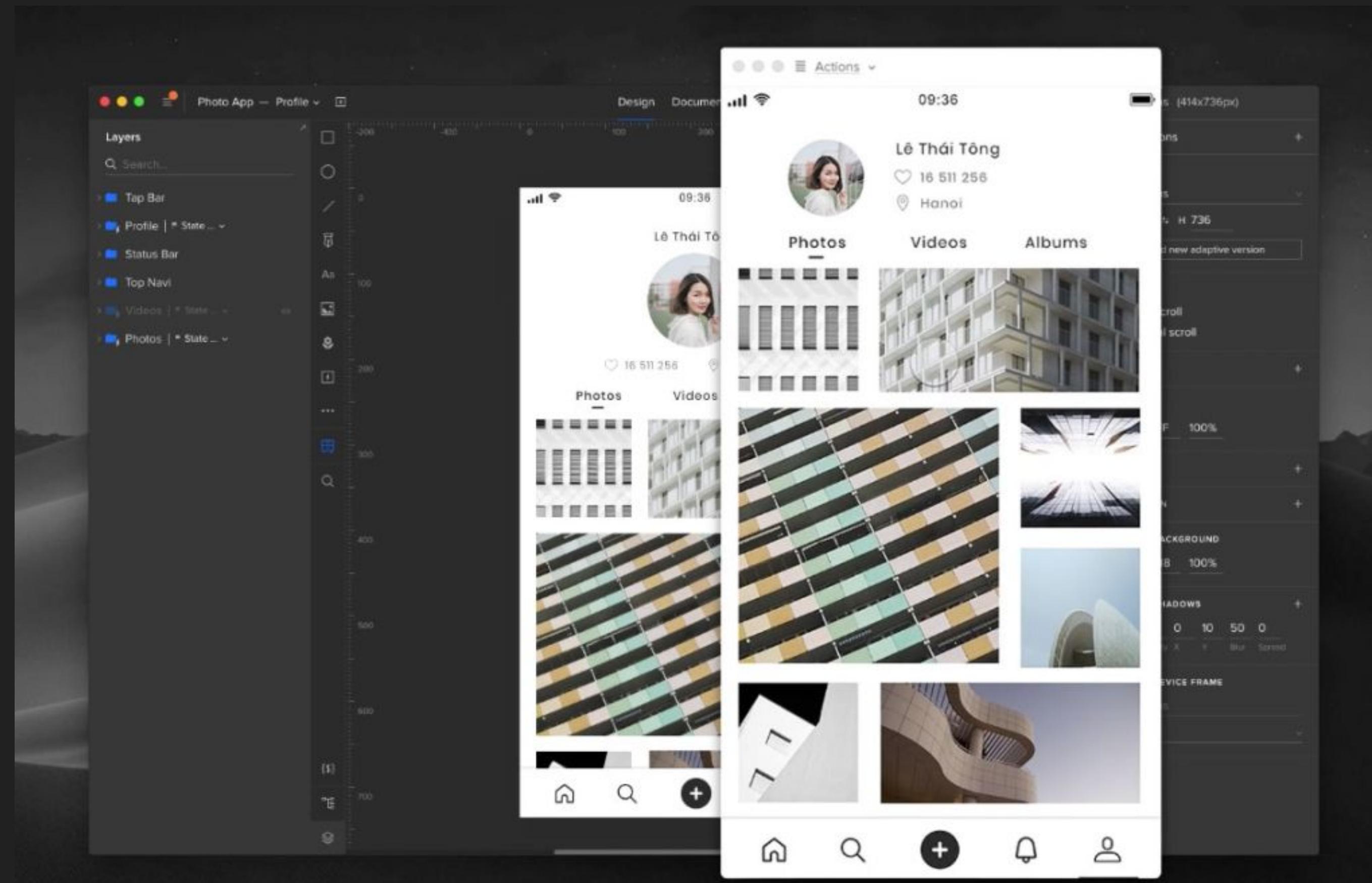
# WIREFRAMING CONT ...



At a deeper level, a wireframe is also very useful in determining how the user interacts with the interface. For example, wireframes can contain various states of button or menu behaviours.

- Balsamiq <https://balsamiq.com>
- Omnigraffle <https://www.omnigroup.com/omnigraffle/>
- Figma <https://www.figma.com>

# MOCKUPS



An alternative to the traditional wireframe, is a mockup. A mockup is a higher fidelity concept, to show more or less what you will get in the final project.

# INSPIRATION

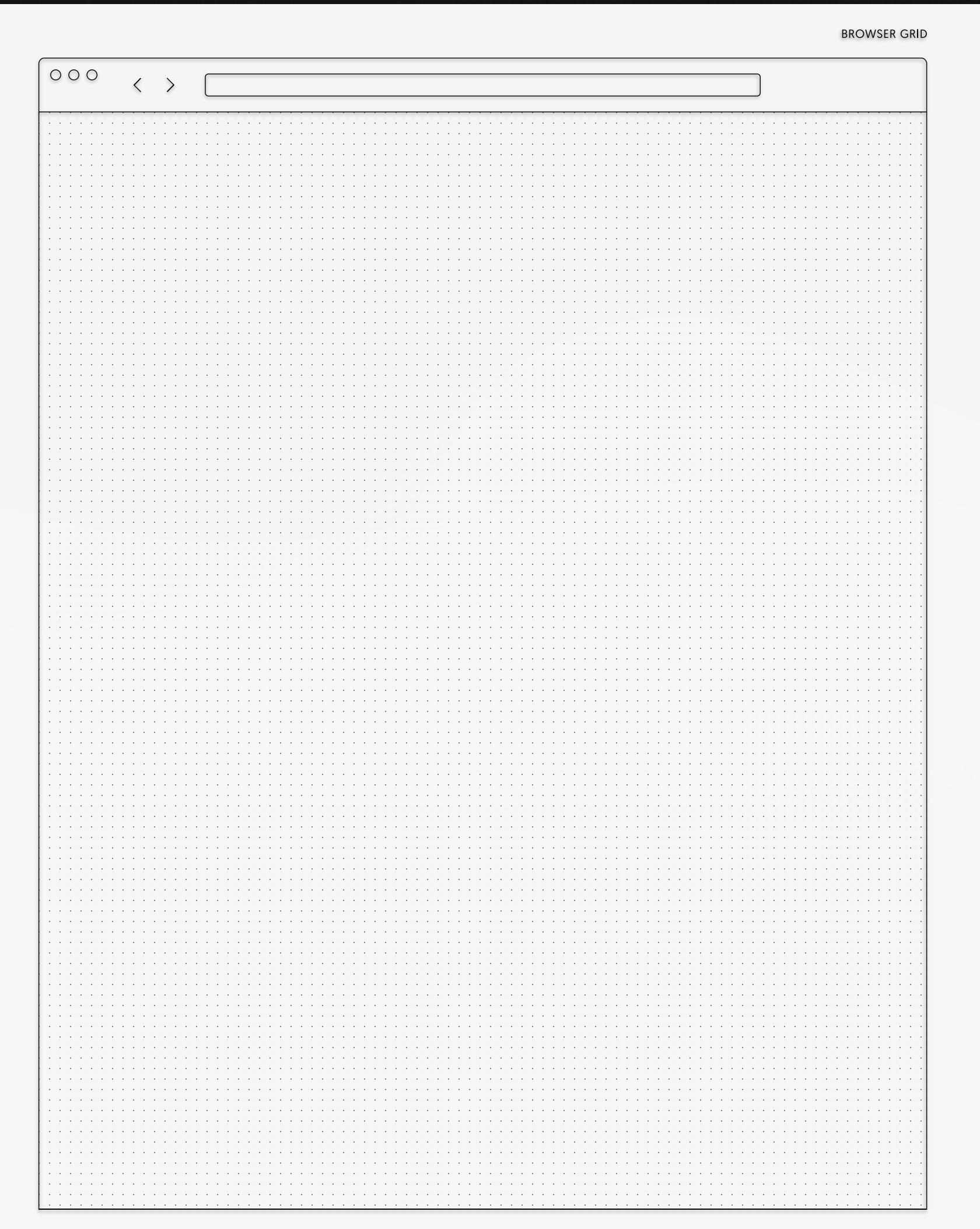
The screenshot shows the Dribbble homepage with a dark background. At the top, there's a navigation bar with links: 'dribbble', 'Inspiration' (which is the active tab), 'Find Work', 'Learn Design', 'Go Pro', 'Design Files', and 'Hire Designers'. To the right of the navigation are a search icon, 'Sign in', and a pink 'Share my work' button. Below the navigation is a horizontal menu with categories: 'Discover' (highlighted in white), 'Animation', 'Branding', 'Illustration', 'Mobile', 'Print', 'Product Design', 'Typography', and 'Web Design'. The main content area features a large, stylized image of a transparent container filled with red, spherical objects, possibly marbles or beads. Overlaid on this image is the text 'Explore the world's leading design portfolios' in white. Below this, a subtitle reads: 'Millions of designers and agencies around the world showcase their portfolio work on Dribbble - the home to the world's best design and creative professionals.' A search bar with a magnifying glass icon and the placeholder 'Search...' is positioned in the center. At the bottom left, there's a 'Trending searches' section with links: 'landing page', 'ios', 'food', 'landingpage', 'uxdesign', and 'app design'. On the bottom right, the handle '@slickstudio' is visible.

<https://dribbble.com>

# SNEAKPEEKIT

<https://sneakpeekit.com>

- Great for beginners
- Printable grids for wire framing
- Sometimes it helps to just draw it out



PROJECT

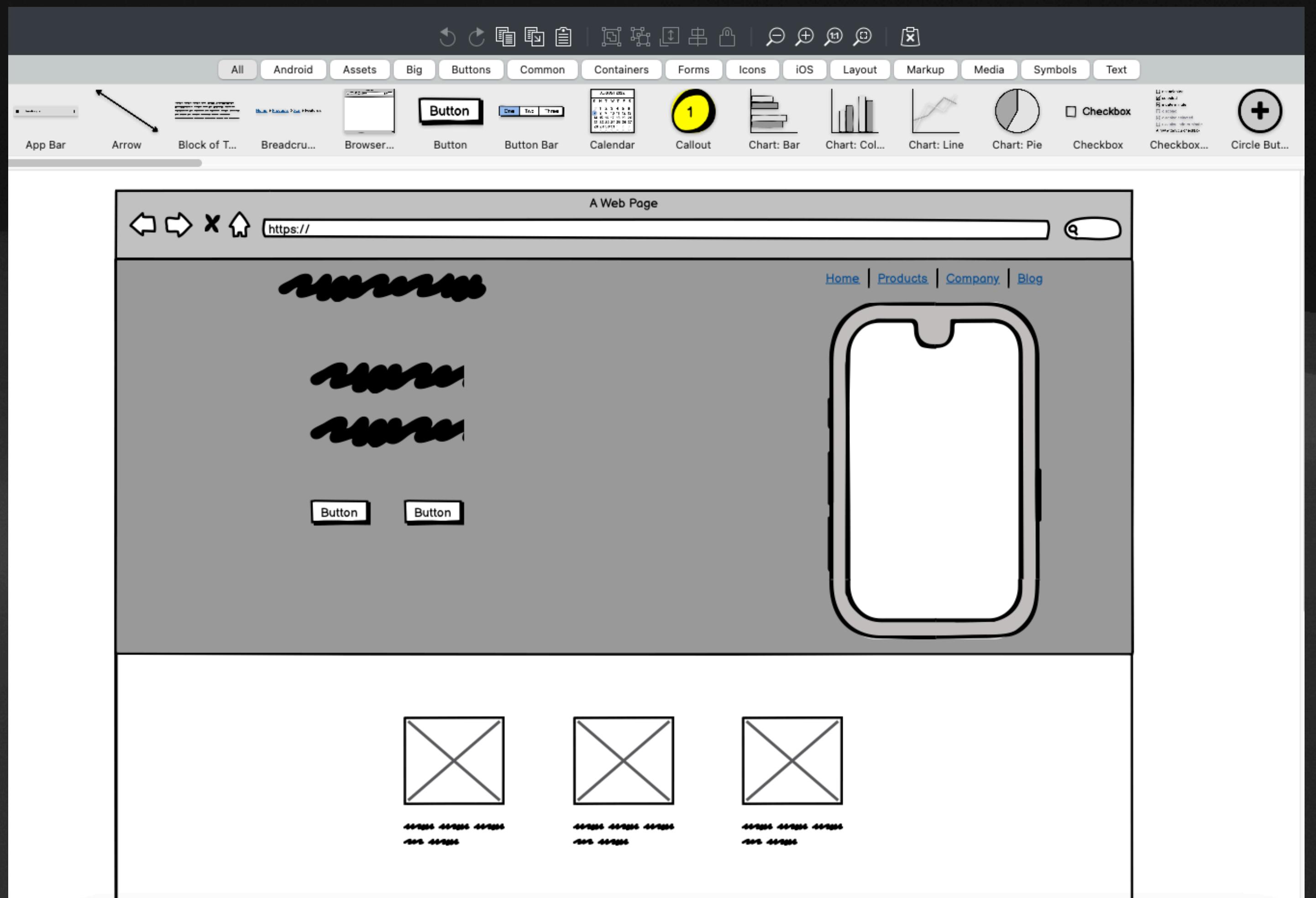
 SNEAKPEEKIT

# BALSAMIQ

## UI wire framing tool

- Rapid low-fidelity
- Like sketching on notepad
- Focus on content structure
- Great for working with clients

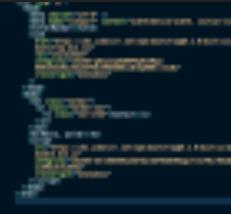
<https://balsamiq.com>



Check demo project

# BOOTSTRAP NAVBAR

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="utf-8" />
5      <meta name="viewport" content="width=device-width, initial-scale=1" />
6      <title>Navbar</title>
7      <link
8          href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.0/dist/css/
9          bootstrap.min.css"
10         rel="stylesheet"
11         integrity="sha384-gH2yI3qKdNHPEq0n4Mqa/
12         HGKIhSkIHeL5AyhkYV8i59U5AR6csBvApHHN1/vI1Bx"
13         crossorigin="anonymous"
14     />
15     </head>
16     <body>
17         <nav class="navbar">
18             <ul class="navbar-nav">
19                 <li class="nav-item">Contact</li>
20             </ul>
21         </nav>
22         <h1>Hello, world!</h1>
```



Check source code named navbar

# BOOTSTRAP GRID

<https://getbootstrap.com/docs/5.2/layout/grid/>

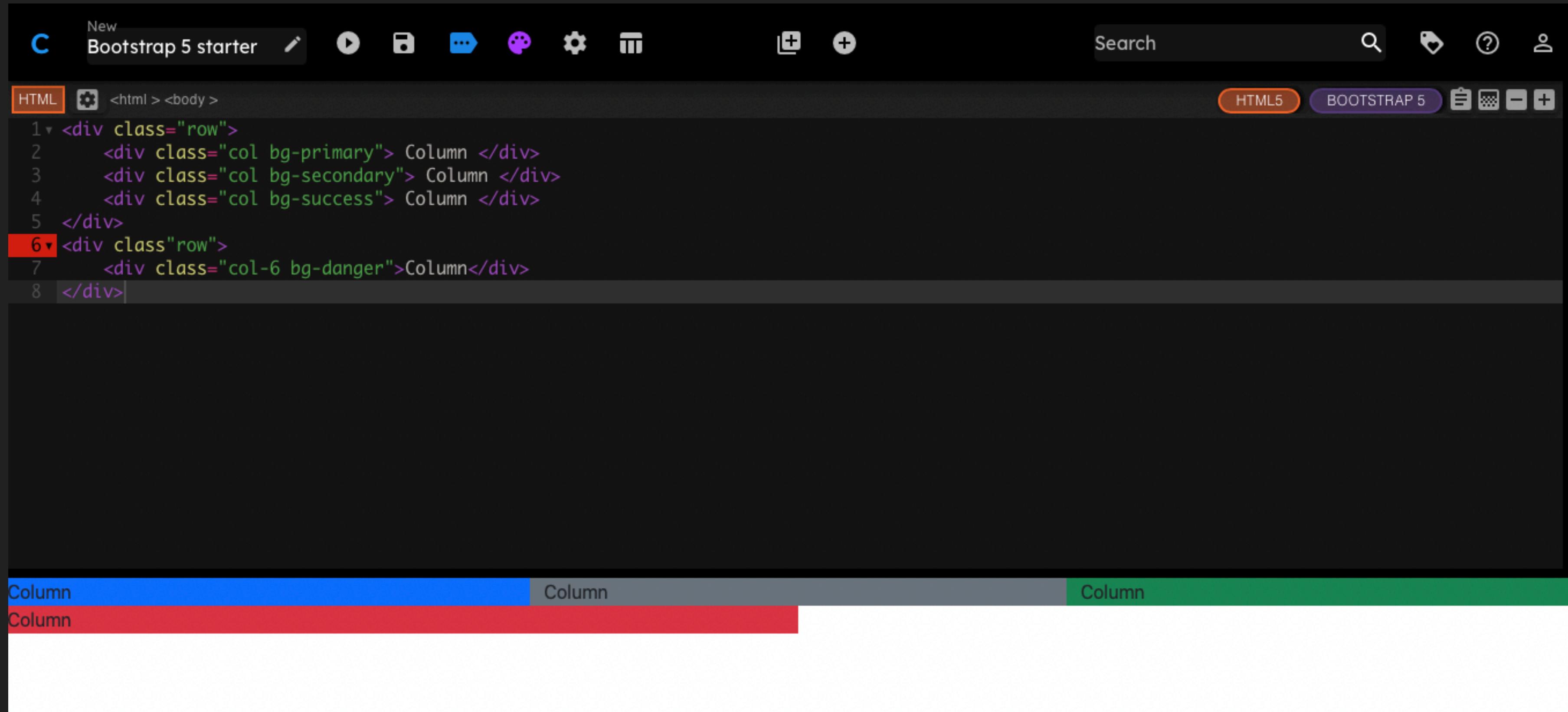
The screenshot shows the Airbnb search interface with the 'Lakefront' filter selected. The results are displayed in a grid format with two rows of five items each. Each item includes a thumbnail image, the location, a rating, distance from the user, availability, and price.

Thumbnail	Location	Rating	Distance	Availability	Price
	Brechin, Canada	★ 4.88	84 kilometres away	Sep. 8 – 14	\$805 CAD night
	Innisfil, Canada	★ 4.72	68 kilometres away	Sep. 18 – 23	\$978 CAD night
	Burlington, Canada	★ 5.0	57 kilometres away	Aug. 21 – 28	\$404 CAD night
	Kawartha Lakes, Canada	★ 5.0	107 kilometres away	Sep. 18 – 23	\$1,599 CAD night

At the bottom center of the grid, there is a button labeled 'Show map' with a location pin icon.

# GRID SYSTEM

powerful mobile-first flexbox grid to build layouts of all shapes and sizes thanks to a twelve column system, six default responsive tiers



The screenshot shows a code editor interface with a dark theme. At the top, there's a toolbar with various icons for file operations, search, and user profile. Below the toolbar, the title bar says "New Bootstrap 5 starter". The main area has tabs for "HTML" and "CSS", with "HTML" currently selected. The code editor displays the following HTML code:

```
1 <div class="row">
2   <div class="col bg-primary"> Column </div>
3   <div class="col bg-secondary"> Column </div>
4   <div class="col bg-success"> Column </div>
5 </div>
6 <div class="row">
7   <div class="col-6 bg-danger">Column</div>
8 </div>
```

Below the code editor is a preview window showing a horizontal layout. It consists of three colored columns: a blue column labeled "Column", a grey column labeled "Column", and a green column labeled "Column". Below these columns is a red horizontal bar labeled "Column". The rest of the page is white.

Check source code for activity

# CONTAINERS

# BOOTSTRAP CONTAINERS

## Default container

Our default `.container` class is a responsive, fixed-width container, meaning its max-width changes at each breakpoint.

```
<div class="container">  
  <!-- Content here -->  
</div>
```

## Responsive containers

Responsive containers allow you to specify a class that is 100% wide until the specified breakpoint is reached, after which we apply max-widths for each of the higher breakpoints. For example, `.container-sm` is 100% wide to start until the sm breakpoint is reached, where it will scale up with md, lg, xl, and xxl.

```
<div class="container-sm">100% wide until small breakpoint</div>  
<div class="container-md">100% wide until medium breakpoint</div>  
<div class="container-lg">100% wide until large breakpoint</div>  
<div class="container-xl">100% wide until extra large breakpoint</div>  
<div class="container-xxl">100% wide until extra extra large breakpoint</div>
```

## Fluid containers

Use `.container-fluid` for a full width container, spanning the entire width of the viewport.

```
<div class="container-fluid">  
  ...  
</div>
```

# CONTAINERS CONT...

<https://getbootstrap.com/docs/5.2/layout/containers/>

<https://getbootstrap.com/docs/5.2/examples/grid/#containers>

The screenshot shows a dark-themed code editor interface for Bootstrap 5. On the left, the HTML tab displays the following code:

```
1 <div class="container" id="containers">
2   <hr class="my-4">
3   <h2 class="mt-4">Containers</h2>
4   <p>Containers that are 100% wide until a particular breakpoint</p>
5 </div>
6 <div class="container themed-container text-center">.container
7 <div class="container-sm themed-container text-center">.container-sm
8 <div class="container-md themed-container text-center">.container-md
9 <div class="container-lg themed-container text-center">.container-lg
10 <div class="container-xl themed-container text-center">.container-xl
11 <div class="container-xxl themed-container text-center">.container-xxl
12 <div class="container-fluid themed-container text-center">.container-fluid
```

On the right, the CSS tab displays the corresponding CSS rules:

```
1 .themed-grid-col {
2   padding-top: .75rem;
3   padding-bottom: .75rem;
4   background-color: rgba(86, 61, 124, .15);
5   border: 1px solid rgba(86, 61, 124, .2);
6 }
7
8 .themed-container {
9   padding: .75rem;
10  margin-bottom: 1.5rem;
11  background-color: rgba(0, 123, 255, .15);
12  border: 1px solid rgba(0, 123, 255, .2);
13 }
```

The main content area below the editor shows the heading "Containers" and a call-to-action button labeled "Check source code containers". Below this, there are three blue rectangular boxes with the class names ".container", ".container-sm", and ".container-md" respectively.

# CSS LINK ORDER

A quick note about stylesheets. If you find that your custom styles are not working, make sure that you change the order of link tags in the header.

To make sure your custom styles are not overriding the bootstrap styles, all you need to do is move the link to your custom stylesheet to a line after the bootstrap CDN link:

```
<head>
  <meta charset="utf-8" />

  <link rel="preconnect" href="https://fonts.googleapis.com" />
  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin />

  <link
    href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.0/dist/css/bootstrap.min.css"
    rel="stylesheet"
    integrity="sha384-gH2yIJqKdNHPEq0n4Mqa/HGKIhSkIHeL5AyhkYV8i59U5AR6csBvApHHNl/vI1Bx"
    crossorigin="anonymous"
  />
  <link rel="stylesheet" href="css/styles.css" />
```

# ADDING FONTS

<https://fonts.google.com>

The screenshot shows the Google Fonts website interface. At the top, there's a navigation bar with links for 'Fonts', 'Icons', 'Knowledge', 'FAQ', and settings. Below the navigation is a secondary navigation bar with links for 'Specimen', 'Type tester', 'Glyphs', 'About & license', and 'Download family'. The main content area features the 'Montserrat' font name in large white text. Below it, a smaller text line reads 'Designed by Julieta Ulanovsky, Sol Matas, Juan Pablo del Peral, Jacques Le Bailly'. The central part of the page contains a large amount of Bulgarian text in the Montserrat font, which translates to: 'Като взе предвид, че пренебрегването и неуважаването на правата'. At the bottom, there are dropdown menus for 'Select preview text', 'Continent', and 'Language'.

Google Fonts > Montserrat

Specimen Type tester Glyphs About & license Download family

# Montserrat

Designed by Julieta Ulanovsky, Sol Matas, Juan Pablo del Peral, Jacques Le Bailly

Като взе предвид, че пренебрегването и неуважаването на правата

Select preview text: Continent Language

# BOOTSTRAP BUTTONS & FONT AWESOME

## Buttons

[View on GitHub](#)

Use Bootstrap's custom button styles for actions in forms, dialogs, and more with support for multiple sizes, states, and more.

## Examples

Bootstrap includes several predefined button styles, each serving its own semantic purpose, with a few extras thrown in for more control.

Primary Secondary Success Danger Warning Info Light Dark Link

HTML



```
<button type="button" class="btn btn-primary">Primary</button>
<button type="button" class="btn btn-secondary">Secondary</button>
<button type="button" class="btn btn-success">Success</button>
<button type="button" class="btn btn-danger">Danger</button>
<button type="button" class="btn btn-warning">Warning</button>
<button type="button" class="btn btn-info">Info</button>
<button type="button" class="btn btn-light">Light</button>
<button type="button" class="btn btn-dark">Dark</button>

<button type="button" class="btn btn-link">Link</button>
```

# FONT AWESOME

<https://fontawesome.com>

The screenshot shows the homepage of the Font Awesome website. At the top, there is a navigation bar with links for Kits, Icons, Docs, Plans, Support, Blog, and a user profile icon. Below the navigation is a search bar containing the placeholder "Search 16,150 icons..." and a version dropdown set to "6.1.2". A message below the search bar suggests trying specific icon names like "currency", "open", "positive", "apple", "dribbble", or "kitty". The page is powered by Algolia. Three large statistics are displayed: "16,150 total icons in Font Awesome 6 Pro", "68 categories of icons", and "2,016 free and open-source icons". Below these stats are three colored cards showing examples of icons: a blue card for "All New Thin Icons" (featuring icons like a camera, bus, and leaf), a yellow card for "Staff Favorites" (featuring icons like a game controller, hand, and gear), and a green card for "Humanitarian Icons" (featuring icons like a person, plane, and dollar sign).

Kits Icons Docs Plans Support Blog

Search 16,150 icons... 6.1.2

Try currency, open, positive, apple, dribbble, or kitty.

Powered by Algolia

**16,150**  
total icons in  
Font Awesome 6 Pro

**68**  
categories  
of icons

**2,016**  
free and  
open-source icons

All New Thin Icons Staff Favorites Humanitarian Icons

# PROJECT SETUP

# PROJECT



**tindev**

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**Meet new and interesting developers nearby.**

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